UNIT III

HOW TO PERFORM RCM

Module 5

FAILURE FINDING TASK

FAILURE FINDING TASK

Module Preview:

Introduction

- **Introduction**
- **Task Development**
- **Review and Summary**

FAILURE FINDING TASK

Module Objective:

Introduction

This module will provide information for evaluating and developing Failure Finding tasks

1. Identify when it is appropriate to develop a Failure Finding task

2. Determine an appropriate task interval for a Failure Finding task

FAILURE FINDING TASK

FAILURE FINDING TASK DEVELOPMENT

FAILURE FINDING TASK

Failure Finding Task: **Task Development**

DEFINITION: A preventive maintenance task performed at a specified interval to determine whether a hidden failure has occurred.

Failure Finding Tasks are most often used to address failures of back-up or redundant systems or indicating/monitoring systems

FAILURE FINDING TASK

Questions:

Task Development

- **Is this a Hidden Failure?**
- **Can a Task be developed that reduces the probability of multiple failure to an acceptable level?**
- **Is the task and required interval feasible?**

FAILURE FINDING TASK

Hidden Failure: **Task Development**

- **Failure Finding task only applies to hidden failures.**
- **Hidden failures require the occurrence of an additional failure or event before any adverse consequences are experienced.**
- **A Failure Finding task may be appropriate to detect failure of PHM or condition monitoring systems which are being used to detect other failures**

FAILURE FINDING TASK

Interval Determination:

Task Development

- **Safety-related failure mode:**

  P_{mf} must be less than or equal to P_{acc}

  $P_{mf} = P_{hidden} \times P_{additional} <= P_{acc}$

- **Non-safety related modes:**

  Task must be cost effective

- **Ensure any probability calculations or estimations address common timeframes**

FAILURE FINDING TASK

Review and Summary

Module Objective

- Provide information for evaluating and developing a Failure Finding task.

Introduction

- Learning Objectives

Task Development

- Hidden Failures
- Interval Determination

End of Module

up next.....

Age Exploration